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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,820	06/23/2003	Martin Bentham	2197.016USX	9080

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Charles N. J. Ruggiero, ESQ.
OHLANDT, GREELEY, RUGGIERO & PERLE, L.L.P.
10th FLOOR
ONE LANDMARK SQUARE
STAMFORD, CT 06901-2682

EXAMINER	
EINSMANN, MARGARET V	
ART UNIT	PAPER NUMBER
1751	

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/601,820

Applicant(s)

BENTHAM, MARTIN

Examiner

Margaret Einsmann

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 14 February 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-23 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☐ Claim(s) 1-23 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/14/05.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/28/05 and the Information Disclosure Statement filed on 2/14/05 have been entered and carefully considered. Claims 1-23 are pending.

The rejections of record based on Berwin, Kronsbein and Kirk have been vacated in view of the following new ground of rejection.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over of Brewin et al., US 2,990,087 or Kronsbein et al., US 2,985,502 in view of Hester et al. US 5,458,265.

In the process of Brewin's invention textile materials, especially hosiery, are placed over forms to maintain the desired shape. This is equivalent to applicant's first process step in claim 1, "removing folds from the fabric" as well as applicant's first process step in claim 12 and it also meets the limitations of claims 13-15. See col 4 line 24 et seq. The dye mixture of water base, dyestuff, resin, surface active agent and lubricant is sprayed by rotating the spray and jetting the spray through the jet nozzles. See col 4 lines 5-23. This meets the limitation of claim 16. The atmosphere in the dyeing chamber is superatmospheric pressure which provides for the migration and fixation of the dye. Though no steam is added to dilute the solution, the superatmospheric pressure at the boiling point is a steam fixation step. The dyeing, scouring, finishing, lubricating and setting occurs in from 1-30 minutes, preferably 4 or 5 minutes. Then the textile material is dried. See entire column 4.

Regarding the limitation of claims 2, 3, 4,5, 17-20 nylon is a polyamide which has a reactive amine site. Patentee also teaches that other natural and synthetic fibers or mixtures thereof may be treated by this invention. See col 3 lines 45-56. Regarding the limitation of claims 6, 7 and 21. Note the examples in columns 7-8, Table-part I. Acid dyes on wool, silk and nylon are used. These are water soluble dyes. As is known to the dye chemist, ionic bonds form from these dyeing processes wherein the amine site reacts with the acid functionality on the dye. Note that disperse dyes are used on several examples (6,7,18,19). These dyeing processes produce a disbursement into the fiber molecule.

Kronsbein et al., US 2,985,502. teaches an alternative process of dyeing synthetic textile garments. Noting figures 1 and 2 and the description in column 2, nylon stockings are mounted on individual supports which stretch the wrinkles out of them, thus meeting the first step of applicant's claims 1 and 12. The upper part of the tank is provided with spray nozzles which produce a spray. At the same time dye is admitted into the tank, steam is admitted into tank 1 through the steam intake pipe 11. The pressure is maintained during the entire dyeing process, which for the dyeing of 16 stockings, is 6 minutes. Accordingly the second step of spraying onto a first side of the fabric is clearly disclosed. Applicant's third step of exposing to a migration and fixation process prior to drying (specifically exposing to steam and heat as claimed in claim 8) is disclosed as the steaming occurs simultaneously with the dyeing. Nylon meets the limitation of having amine sites to react with the dye; the metal complex dye disclosed in col 3 line13 meets the limitation of a water soluble dye.

Both Brewin and Kronsbein teach the conventional method of dyeing piece goods by placing the piece on a form and spraying dye onto said piece. Neither teach a process of minimizing over-spray of said dye. Hester et al. discloses an improved apparatus for spraying a finish onto a textile piece goods, wherein the piece is held in place in expanded form (which is a functionally equivalent improvement over the forms used in both Brewin and Kronsbein) and the spraying is directed to an exact location on the garment. The process of Hester et al. includes a conveyer system wherein garments are mounted on fixtures, inflated to their fully extended, three-dimensional form, (applicant's step of removing folds from the fabric) and conveyed to a series of

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stations which include robot -manipulated tools, such as spray guns, which apply chemical or mechanical finishes to the garments. See abstract and figure 1. When the garments are stretched to their natural "full" position wrinkles will be eliminated. The robots are controlled by a microprocessor. A spray nozzle is placed in the hand of the robot, and the amount and position of the spray is controlled by the microprocessor. In Figure 1 the robot 76 which is controlled by the microprocessor directs the spray of treatment solution precisely onto the garment minimizing over-spray of the treatment solution. While Hester's working embodiment in col 3 discloses the application of a bleaching agent to a garment, he suggests that the process may be used for dyeing (col 5 line 1), and that the garment may then be conveyed to other stations for other finishing steps (col 3 lines 43-47). It would have been obvious to the skilled artisan to modify the processes of either Kronsbein or Brewin by including a robot controlled by a microprocessor to direct the dye where needed because Hester teaches at column 2 under "Summary of the Invention" that their process is an improvement over the conventional manner of spray dyeing garments individually, and accordingly the replacement of the spraying component of either Kronsbein or Brewin by the robot of Hester et al. would result in an improved process of applying dyes to the textiles dyed by the process of Brewin or Kronsbein.

The rejection of Claims 1-21 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement has been mooted by applicant's response pointing to basis in the specification for the added claim limitation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret Einsmann whose telephone number is 571-272-1314. The examiner can normally be reached on 7:00 AM -4:30 PM M-Th and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Margaret Einsmann
Primary Examiner
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